-1-

SEQUENCE LISTING

<110> Herr, John C. 5 Shetty, Jagathapala Wolkowicz, Michael Jayes, Friederike Hao, Zhonglin 10 <120> Sperm Specific Proteins <130> 00497-02 <140> 15 <141> <150> 60/176,885 <151> 2000-01-19 20 <160> 20 <170> PatentIn Ver. 2.1 <210> 1 25 <211> 1337 <212> DNA <213> Homo sapiens <400> 1 30 ccagcctggt ggccccagga cgttccggtc gcatggcaga atgctggggg cgacgcctat 60 gaagecetta gteettetag ttgegetttt getatggeet tegtetgtge eggettatee 120 gagcataact gtgacacctg atgaagagca aaacttgaat cattatatac aagttttaga 180 35 gaacctagta cgaagtgttc cctctgggga gccaggtcgt gagaaaaaat ctaactctcc 240 aaaacatgtt tattctatag catcaaaggg atcaaaattt aaggagctag ttacacatgg 300

	agacgcttca	actgagaatg	atgttttaac	caatcctatc	agtgaagaaa	ctacaacttt	360
5	ccctacagga	ggcttcacac	cggaaatagg	aaagaaaaaa	cacacggaaa	gtaccccatt	420
	ctggtcgatc	aaaccaaaca	atgtttccat	tgttttgcat	gcagaggaac	cttatattga	480
	aaatgaagag	ccagagccag	agccggagcc	agctgcaaaa	caaactgagg	caccaagaat	540
10	gttgccagtt	gttactgaat	catctacaag	tccatatgtt	acctcataca	agtcacctgt	600
	caccacttta	gataagagca	ctggcattga	gatctataca	gaatcagaag	atgttcctca	660
15	gctctcaggt	gaaactgcga	tagaaaaacc	cgaagagttt	ggaaagcacc	cagagagttg	720
	gaataatgat	gacattttga	aaaaaatttt	agatattaat	tcacaagtgc	aacaggcact	780
	tcttagtgac	accagcaacc	cagcatatag	agaagatatt	gaagcctcta	aagatcacct	840
20	aaaacccagc	cttgctctag	cagcagcagc	agaacataaa	ttaaaaacaa	tgtataagtc	900
	ccagttattg	ccagtaggac	gaacaagtaa	taaaattgat	gacatcgtaa	ctgttattaa	960
25	catgctgtgt	aattctagat	ctaaactcta	tgaatattta	gatattaaat	gtgttccacc	1020
	agagatgaga	gaaaaagctg	ctacagtatt	caatacatta	aaaaatatgt	gtagatcaag	1080
	gagagtcaca	gccttattaa	aagtttatta	aacaataata	taaaaatttt	aaacctactt	1140
30	gatattccat	aacaaagctg	atttaagcaa	actgcatttt	ttcacaggag	aaataatcat	1200
	attcgtaatt	tcaaaagttg	tataaaaata	ttttctattg	tagttcaaat	gtgccaacat	1260
35	ctttatgtgt	catgtgttat	gaacaatttt	catatgcact	aaaaacctaa	tttaaaataa	1320
	aattttggtt	caggaaa					1337

									- 3							
	<210	0 > 2														
	<21	1> 3	50													
	<212	2> PI	RT													
	<213	3 > Ho	omo s	sapie	ens											
5																
	<400	0> 2														
	Met	Lys	Pro	Leu	Val	Leu	Leu	Val	Ala	Leu	Leu	Leu	\mathtt{Trp}	Pro	Ser	Ser
	1				5					10					15	
10	Val	Pro	Ala	Tyr	Pro	Ser	Ile	Thr	Val	Thr	Pro	Asp	Glu	Glu	Gln	Asn
				20					25					30		
	Leu	Asn	His	Tyr	Ile	Gln	Val	Leu	Glu	Asn	Leu	Val	Arg	Ser	Val	Pro
			35					40					45			
15																
	Ser	Gly	Glu	Pro	Gly	Arg	Glu	Lys	Lys	Ser	Asn	Ser	Pro	Lys	His	Val
		50					55					60				
	Tyr	Ser	Ile	Ala	Ser	Lys	Gly	Ser	Lys	Phe	Lys	Glu	Leu	Val	Thr	His
20	65					70					75					80
	Gly	Asp	Ala	Ser	Thr	Glu	Asn	Asp	Val	Leu	Thr	Asn	Pro	Ile	Ser	Glu
					85					90					95	
25	Glu	Thr	Thr	Thr	Phe	Pro	Thr	Gly	Gly	Phe	Thr	Pro	Glu	Ile	Gly	Lys
				100					105					110		
	Lys	Lys	His	Thr	Glu	Ser	Thr	Pro	Phe	Trp	Ser	Ile	Lys	Pro	Asn	Asn
			115					120					125			
30																
	Val	Ser	Ile	Val	Leu	His	Ala	Glu	Glu	Pro	Tyr	Ile	Glu	Asn	Glu	Glu
		130					135					140				
	Pro	Glu	Pro	Glu	Pro	Glu	Pro	Ala	Ala	Lys	Gln	Thr	Glu	Ala	Pro	Arg
35	145					150					155					160
	Met	Leu	Pro	Val	Val	Thr	Glu	Ser	Ser	Thr	Ser	Pro	Tvr	Val	Thr	Ser

170

175

165

	Tyr	Lys	Ser	Pro 180	Val	Thr	Thr	Leu	Asp 185	Lys	Ser	Thr	Gly	Ile 190	Glu	Ile
5	Tyr	Thr	Glu 195	Ser	Glu	Asp	Val	Pro 200	Gln	Leu	Ser	Gly	Glu 205	Thr	Ala	Ile
10	Glu	Lys 210	Pro	Glu	Glu	Phe	Gly 215	Lys	His	Pro	Glu	Ser 220	Trp	Asn	Asn	Asp
	Asp 225	Ile	Leu	Lys	Lys	Ile 230	Leu	Asp	Ile	Asn	Ser 235	Gln	Val	Gln	Gln	Ala 240
15	Leu	Leu	Ser	Asp	Thr 245	Ser	Asn	Pro	Ala	Tyr 250	Arg	Glu	Asp	Ile	Glu 255	Ala
	Ser	Lys	Asp	His 260	Leu	Lys	Pro	Ser	Leu 265	Ala	Leu	Ala	Ala	Ala 270	Ala	Glu
20	His	Lys	Leu 275	Lys	Thr	Met	Tyr	Lys 280	Ser	Gln	Leu	Leu	Pro 285	Val	Gly	Arg
25	Thr	Ser 290	Asn	Lys	Ile	Asp	Asp 295	Ile	Val	Thr	Val	Ile 300	Asn	Met	Leu	Cys
	Asn 305	Ser	Arg	Ser	Lys	Leu 310	Tyr	Glu	Tyr	Leu	Asp 315	Ile	Lys	Cys	Val	Pro 320
30	Pro	Glu	Met	Arg	Glu 325	Lys	Ala	Ala		Val 330	Phe	Asn	Thr	Leu	Lys 335	Asn
	Met	Cys	Arg	Ser 340	Arg	Arg	Val	Thr	Ala 345	Leu	Leu	Lys	Val	Туг 350		
35																
	<21	0 > 3														
	<21	1> 2	2													
	<21	2 > D	NA													

```
<213> Artificial Sequence
     <220>
     <223> Description of Artificial Sequence: PCR primer
 5
     <220>
     <221> primer_bind
     <222> (1)..(22)
10
    <400> 3
     cttgctctag cagcagcaga ac
                                                                         22
     <210> 4
15
    <211> 30
     <212> DNA
     <213> Artificial Sequence
     <220>
20
     <223> Description of Artificial Sequence: PCR Primer
     <220>
     <221> primer_bind
     <222> (1)..(30)
25
     <400> 4
     tcataacaca tgacacataa agatgttggc
                                                                         30
30
     <210> 5
     <211> 43
     <212> DNA
     <213> Artificial Sequence
35
     <220>
     <223> Description of Artificial Sequence: PCR Primer
     <220>
```

-5-

```
-6-
    <221> primer_bind
    <222> (1)..(43)
    <400> 5
5
    catgcatgcc atggatccga gcataactgt gacacctgat gaa
                                                                       43
    <210> 6
    <211> 44
10 <212> DNA
    <213> Artificial Sequence
    <220>
    <223> Description of Artificial Sequence: PCR Primer
15
    <220>
     <221> primer_bind
     <222> (1)..(44)
20
    <400> 6
     gagtcgctcg agataaactt ttaataaggc tgtgactctc cttg
                                                                       44
    <210> 7
25 <211> 14
     <212> PRT
     <213> Homo sapiens
     <400> 7
30
     Ala Ser Thr Pro Glu Val Gln Ser Glu Gln Ser Ser Val Arg
                                          10
```

<210> 8

35 <211> 1455

<212> DNA

<213> Homo sapiens

<400> 8

gcgcttcgac gtacctgtcc tcaggagccg cggcggcgac tgcgcctcgg acggccgtcg 60 gggccgagaa ccatgagccc caggggcacg ggctgctccg ccgggctgct gatgactgtc 120 5 ggctggctgc ttctggcggg cctccagtcc gcgcgcggga ccaacgtcac cgctgccgtc 180 caggatgccg gcctggccca cgaaggcgag ggcgaggagg agaccgaaaa caacgacagc 240 10 gagaccgcgg agaactacgc tccgcctgaa accgaggatg tttcaaatag gaatgtcgtc 300 aaagaagtag aatteggaat gtgeacegtt acatgtggta ttggggttag agaagttata 360 ttaacaaatg gatgccctgg tggtgaatcc aagtgtgttg tacgggtaga agaatgccgt 420 15 ggaccaacag attgtggctg gggtaaacca atttcagaaa gtcttgaaag tgttagattg 480 gcatgtattc acacatctcc cttaaatcgt ttcaaatata tgtggaaact tctaagacaa 540 20 gaccaacaat ccattatact tgtaaatgat tcagcaatcc tagaagtacg caaggaaagt 600 caccccttgg ctttcgagtg tgacacactg gataataatg aaatagtagc aactattaaa 660 ttcacagtct atacgagcag tgaattgcag atgagaagat caagcctacc agccactgat 720 25 gcagccctaa tttttgtgct gaccatagga gtcattatct gtgtatttat aattttctta 780 ttgatcttca taatcataaa ttgggcagca gtcaaggctt tttggggggc aaaagcctct 840 30 acacctgagg tacaatccga gcagagttct gtgagataca aagattcaac ttctcttgac 900 caattaccaa cagaaatgcc tggtgaagat gatgctttaa gtgaatggaa tgaatgatgt 960 ttgaatgata tataacaaac caaaggatat tacagaatat tagattcatt attacaaaaa 1020 35 taaaatacac attgaaatac tttaataatg ttgcgatgga ttgccacagt gtgaaggaaa 1080 tgcagtgtgg ggataggact attttatcag tgcatttttc cagtacagtt atcaaatatt 1140

	acttttaatt	tgttctcaac	acttatttca	ggtaatagct	tggggatatt	tatctaaagt	1200
5	acccccaaca	aatcttctaa	gtgcattttt	gatcactttg	ataacttctt	aggtgatttg	1260
	cctgttttgt	cttaaataag	aacaatgtaa	tatagaaatg	ctttacatat	tagactttct	1320
	ctcccctgga	agcactgggt	tgaacttgct	aaagtaaatc	atactttaga	atctcttcag	1380
10	ggaatgtgac	atacaaagtt	tgtaagacat	gaagtaataa	cgataatgat	aacaataaat	1440
	gcttacttag	tgaaa					1455

15 <210> 9 <211> 294 <212> PRT <213> Homo sapiens

35

20 <400> 9

Met Ser Pro Arg Gly Thr Gly Cys Ser Ala Gly Leu Leu Met Thr Val

1 5 10 15

Gly Trp Leu Leu Ala Gly Leu Gln Ser Ala Arg Gly Thr Asn Val
25 20 25 30

Thr Ala Ala Val Gln Asp Ala Gly Leu Ala His Glu Gly Glu Gly Glu 35 40 45

30 Glu Glu Thr Glu Asn Asn Asp Ser Glu Thr Ala Glu Asn Tyr Ala Pro
50 55 60

Pro Glu Thr Glu Asp Val Ser Asn Arg Asn Val Val Lys Glu Val Glu 65 70 75 80

Phe Gly Met Cys Thr Val Thr Cys Gly Ile Gly Val Arg Glu Val Ile 85 90 95

290

	Leu	Thr	Asn	Gly 100	Cys	Pro	Gly	Gly	Glu 105	Ser	Lys	Сув	Val	Val 110	Arg	Val
5	Glu	Glu	Cys 115	Arg	Gly	Pro	Thr	Asp 120	Cys	Gly	Trp	Gly	Lys 125	Pro	Ile	Ser
	Glu	Ser 130	Leu	Glu	Ser	Val	Arg 135	Leu	Ala	Cys	Ile	His 140	Thr	Ser	Pro	Leu
10	Asn 145	Arg	Phe	Lys	туr	Met 150	Trp	Lys	Leu	Leu	Arg 155	Gln	Asp	Gln	Gln	Ser 160
	Ile	Ile	Leu	Val	Asn 165	Asp	Ser	Ala	Ile	Leu 170	Glu	Val	Arg	Lys	Glu 175	Ser
15	His	Pro	Leu	Ala 180	Phe	Glu	Cys	Asp	Thr 185	Leu	Asp	Asn	Asn	Glu 190	Ile	Val
20	Ala	Thr	Ile 195	Lys	Phe	Thr	Val	Tyr 200	Thr	Ser	Ser	Glu	Leu 205	Gln	Met	Arg
	Arg	Ser 210	Ser	Leu	Pro	Ala	Thr 215	Asp	Ala	Ala	Leu	Ile 220	Phe	Val	Leu	Thr
25	Ile 225	Gly	Val	Ile	Ile	Cys 230	Val	Phe	Ile	Ile	Phe 235	Leu	Leu	Ile	Phe	Ile 240
20	Ile	Ile	Asn	Trp	Ala 245	Ala	Val	Lys	Ala	Phe 250	Trp	Gly	Ala	Lys	Ala 255	Ser
30	Thr	Pro	Glu	Val 260	Gln	Ser	Glu	Gln	Ser 265	Ser	Val	Arg	Tyr	Lys 270	Asp	Ser
35	Thr	Ser	Leu 275	Asp	Gln	Leu	Pro	Thr 280	Glu	Met	Pro	Gly	Glu 285	Asp	Asp	Ala
	Leu	Ser	Glu	Trp	Asn	Glu										

-10-

```
<210> 10
     <211> 22
     <212> DNA
     <213> Artificial Sequence
 5
     <220>
     <223> Description of Artificial Sequence: PCR Primer
     <220>
10 <221> primer_bind
     <222> (1)..(22)
   <400> 10
     agtcacccct tggctttcga gt
                                                                        22
15
     <210> 11
     <211> 24
     <212> DNA
20 <213> Artificial Sequence
     <220>
     <223> Description of Artificial Sequence: PCR Primer
25
     <220>
     <221> primer_bind
     <222> (1)..(24)
30
   <400> 11
     aatattctgt aatatccttt ggtt
                                                                        24
     <210> 12
35
   <211> 24
     <212> DNA
     <213> Artificial Sequence
```

-11-

```
<220>
     <223> Description of Artificial Sequence: PCR Primer
     <220>
5
    <221> primer_bind
     <222> (1)..(24)
     <400> 12
    ctttgtatgt cacattccct gaag
                                                                       24
10
     <210> 13
     <211> 24
     <212> DNA
15
   <213> Artificial Sequence
     <220>
     <223> Description of Artificial Sequence: PCR Primer
20
    <220>
     <221> primer_bind
     <222> (1)..(24)
     <400> 13
25
    gaggtacaat ccgagcagag ttct
                                                                        24
     <210> 14
     <211> 600
30 <212> DNA
     <213> Homo sapiens
     <400> 14
     gtcccggatc cgcgagggac gcagggcgtt gggaacagag gacactccag gcgctgaccc 60
35
     tgggaggcca ggaccagggc caaagtcccg tgggcaagag gagtcctcag aggtccttca 120
     ttcagcggtt ccgggaggtc tggggaggcc acggcctggc tggggcaggg tcaacgccgc 180
```

caggccgcca tggtcctgtg ctggctgctg cttctggtga tggctctgcc cccaggcacg 240

acgggcgtca aggactgcgt cttctgtgag ctcaccgact ccatgcagtg tcctggtacc 300

tacatgcact gtggcgatga cgaggactgc ttcacaggcc acggggtcgc cccgggcact 360

ggtccggtca tcaacaaagg ctgcctgcga gccaccagct gcggccttga ggaacccgtc 420

agctacaggg gcgtcaccta cagcctcacc accaactgct gcaccggccg cctgtgtaac 480

agagccccga gcagccagac agtgggggcc accaccagcc tggcactggg gctgggtatg 540

ctgcttcctc cacgtttgct gtgaccaaca gggaggacag ggcctgggac tgttctcca 600

<210> 15

<211> 375

<212> DNA

20 <213> Homo sapiens

<400> 15

25

30

35

atggtectgt getggetget gettetggtg atggetetge ecceaggeae gaeggeggte 60

aaggaetgeg tettetgtga geteacegae tecatgeagt gteetggtae etacatgeae 120

tgtggegatg aegaggaetg etteacagge eaeggggteg eccegggeae tggteeggte 180

ateaacaaag getgeetgeg ageeaceage tgeggeettg aggaaeeegt eagetaeagg 240

ggegteacet aeageeteae eaecaaetge tgeaceggee geetgtgtaa eagageeeeg 300

ageageeaga eagtgggge eaecaeeage etggeaetgg ggetggtat getgetteet 360

ceaegtttge tgtga 375

<210> 16

<211> 124

<212> PRT

<213> Homo sapiens

5

<400> 16

Met Val Leu Cys Trp Leu Leu Leu Leu Val Met Ala Leu Pro Pro Gly

1 5 10 15

10 Thr Thr Gly Val Lys Asp Cys Val Phe Cys Glu Leu Thr Asp Ser Met
20 25 30

Gln Cys Pro Gly Thr Tyr Met His Cys Gly Asp Asp Glu Asp Cys Phe 35 40 45

15

Thr Gly His Gly Val Ala Pro Gly Thr Gly Pro Val Ile Asn Lys Gly 50 55 60

Cys Leu Arg Ala Thr Ser Cys Gly Leu Glu Glu Pro Val Ser Tyr Arg 20 65 70 75 80

Gly Val Thr Tyr Ser Leu Thr Thr Asn Cys Cys Thr Gly Arg Leu Cys
85 90 95

25

Asn Arg Ala Pro Ser Ser Gln Thr Val Gly Ala Thr Thr Ser Leu Ala 100 105 110

Leu Gly Leu Gly Met Leu Leu Pro Pro Arg Leu Leu 30 115 120

<210> 17

<211> 569

35 <212> DNA

<213> Homo sapiens

	<400> 17						
	gcactggtcc	ggtcatcaac	aaaggctgcc	tgcgagccac	cagetgegge	cttgaggaac	60
5	ccgtcagcta	caggggcgtc	acctacagcc	tcaccaccaa	ctgctgcacc	ggccgcctgt	120
	gtaacagagc	cccgagcagc	cagacagtgg	gggccaccac	cagcctggca	ctggggctgg	180
	gtatgctgct	tcctccacgt	ttgctgtgac	caacagggag	gacagggcct	gggactgttc	240
10	tcccagatcc	gccactcccc	atgtccccat	gtccttcccc	cactaaatgg	ccagagaggc	300
	cctggacaac	ctcttgcggc	cctggcttca	tcccttctaa	ggctgtccac	caggagcccg	360
15	gtgctagggg	aagcatcccc	aggcctgact	gagcggcagg	ggagcacggc	ccgtgggttt	420
	gattgtatta	ctctgttcca	ctggttctaa	gacgcagagc	ttctcacatc	tcaatcagga	480
	tgcttctctc	cattggtagc	actttagagt	ccatgaaata	tggtaaaaaa	tatatatata	540
20	tcataataaa	tgacagctga	tgttcaaaa				569

<210> 18

<211> 166

25 <212> DNA

<213> Homo sapiens

<400> 18

atggtcctgt gctggctgct gcttctggtg atggctctgc ccccaggcac gacggcgtc 60

aaggactgcg tcttctgtga gctcaccgac tccatgcagt gtcctggtac ctacatgcac 120

tgtggcgatg acgaggactg cttcacaggc cacggggtcg ccccgg 166

35

30

-15-

```
<210> 19
     <211> 13
     <212> PRT
     <213> Homo sapiens
 5
     <400> 19
    Ala Thr Ser Cys Gly Leu Glu Glu Pro Val Ser Tyr Arg
                       5
10
     <210> 20
    <211> 128
15
    <212> PRT
    <213> Homo sapiens
     <400> 20
20
    Met Arg Thr Ala Leu Leu Leu Leu Ala Ala Leu Ala Val Ala Thr Gly
    Pro Ala Leu Thr Leu Arg Cys His Val Cys Thr Ser Ser Ser Asn Cys
25
    Lys His Ser Val Val Cys Pro Ala Ser Ser Arg Phe Cys Lys Thr Thr
            35
30
    Asn Thr Val Glu Pro Leu Arg Gly Asn Leu Val Lys Lys Asp Cys Ala
         50
35
    Glu Ser Cys Thr Pro Ser Tyr Thr Leu Gln Gly Gln Val Ser Ser Gly
     65
                                             75
40
     Thr Ser Ser Thr Gln Cys Cys Gln Glu Asp Leu Cys Asn Glu Lys Leu
                     85
     His Asn Ala Ala Pro Thr Arg Thr Ala Leu Ala His Ser Ala Leu Ser
45
                 100
                                     105
     Leu Gly Leu Ala Leu Ser Leu Leu Ala Val Ile Leu Ala Pro Ser Leu
             115
                                 120
50
```